

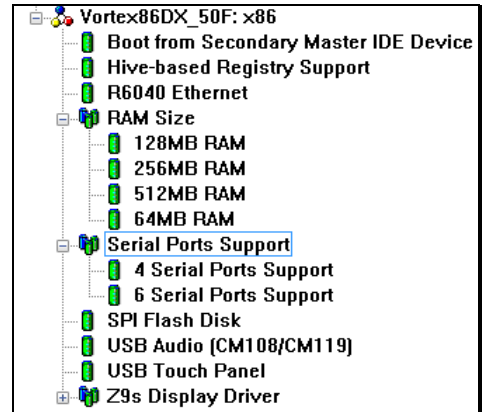
# Vortex86DX Windows CE 5.0 BSP Note

2010-03-30

After installing Vortex86DX BSP for Windows Embedded CE 5.0, developer can start Windows CE development for Vortex86DX boards. Here are notes for your reference:

## Install QFE

Your can download QFE from Microsoft web site for Platform Builder: <http://msdn.microsoft.com/en-us/windowseembedded/ce/dd430902.aspx>. Install QFE "Windows CE 5.0 Cumulative Product Update Rollup Package (through 12/31/2009)" to fix a lot of bugs. If more new QFE are available, please install them.



(Vortex86DX BSP Options)

## IDE Issue for Vortex86DX Version C/D

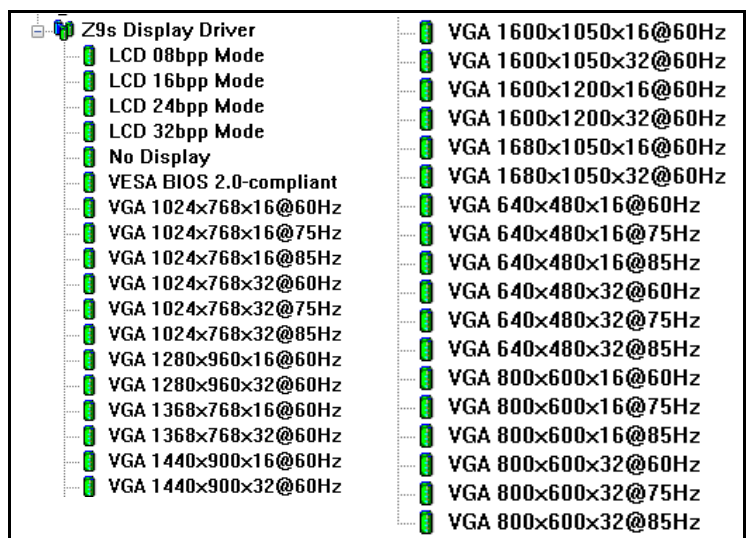
In order to make IDE work on Vortex86DX version C/D, please set IDE as native mode in BIOS.

## Boot from Secondary Master IDE Device

Some CF or DOM on Vortex86SX/DX board is set as master device of secondary IDE (for example: eBox-3300A). Please enable this option to make them work properly.

## XGI Z9s Display Driver

Z9s graphic chipset is for most Vortex86DX boards with video function. Vortex86DX BSP will not add XGI Z9s display driver by default. If your evaluation boards have video function, select one display resolution.



## R6040 Ethernet

R6040 is the built-in 10/100Mb Ethernet in Vortex86DX SoC. In order to use KITL to debug, please use eboot.bin at “Vortex86SX\_50E\Src\Bootloader\Boot\bin”.

## Hive-based Registry

The registry settings for hive-based registry settings are added platform.reg. Just add “Hive-based Registry” from catalog window into your workspace to enable hive-based registry support.

## Serial Ports

User can find the I/O address of COM1 in **platform.reg** is 0x2F8 and IRQ is 3. This is because Windows CE uses the first serial port as debug port. Here is the table of serial ports setting in Windows CE:

Windows CE	I/O Address	IRQ	Normal PC
Debug Serial	0x3F8		COM1:
COM1:	0x2F8	3	COM2:
COM2:	0x3E8	4	COM3:
COM3:	0x2E8	5	COM4:

If user opens "COM1:" to send data in Windows CE, data will be sent to serial port 2. Follow those steps to disable debug serial port in Windows CE:

1. Open “%\_WIN\_DIR%\PLATFORM\COMMON\SRC\X86\COMMON\OTHER\debug.c” in Platform Builder 5.0:

```
void OEMInitDebugSerial(void)
{
    // Locate bootargs (this is the first opportunity the OAL has to initialize this global).
    //
    InitBootInfo ((BOOT_ARGS *) ((ULONG)(*(PBYTE *)BOOT_ARG_PTR_LOCATION) | 0x80000000));
    . . . .
    default:
        IoPortBase = 0;
        break;
}

IoPortBase = 0; //-- add this line

if ( IoPortBase ) {
    . . . .
}
```

2. Rebuild your image.
3. The registry settings for serial ports are okay in platform.reg in Vortex86SX BSP. It is no need to modify.
4. If you need COM4, add this environment variable “**BSP\_SERIAL4=1**”. (or, add “4<sup>th</sup> Serial Port” from BSP catalog)
5. Build your image.

## Technical Support

For more technical support, please visit <http://www.dmp.com.tw/tech/vortex86dx> or mail to [tech@dmp.com.tw](mailto:tech@dmp.com.tw).